

Translation

PATENT COOPERATION TREATY

PCT/JP2003/017059



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|---|--|---|
| Applicant's or agent's file reference<br>F0314PCT   | <b>FOR FURTHER ACTION</b><br>See Form PCT/IPEA/416                                   |   |
| International application No.<br>PCT/JP2003/017059  | International filing date ( <i>day/month/year</i> )<br>26 December 2003 (26.12.2003) | Priority date ( <i>day/month/year</i> ) |
| International Patent Classification (IPC) or national classification and IPC<br>B08B 7/04 (2006.01), B08B 1/04 (2006.01), H01L 21/304 (2006.01) |  |   |
| Applicant<br>AION CO., LTD.   |  |   |

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| 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.   |
| 2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.   |
| 3. This report is also accompanied by ANNEXES, comprising:<br>a. <input type="checkbox"/> ( <i>sent to the applicant and to the International Bureau</i> ) a total of _____ sheets, as follows:<br><div style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).<br/><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</div><br>b. <input type="checkbox"/> ( <i>sent to the International Bureau only</i> ) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). |
| 4. This report contains indications relating to the following items:<br><div style="margin-left: 20px;"><input checked="" type="checkbox"/> Box No. I Basis of the report<br/><input type="checkbox"/> Box No. II Priority<br/><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability<br/><input type="checkbox"/> Box No. IV Lack of unity of invention<br/><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement<br/><input type="checkbox"/> Box No. VI Certain documents cited<br/><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application<br/><input type="checkbox"/> Box No. VIII Certain observations on the international application</div>   |

|   |   |
|---|---|
| Date of submission of the demand<br>14 July 2005 (14.07.2005) | Date of completion of this report<br>01 March 2006 (01.03.2006) |
| Name and mailing address of the IPEA/JP                       | Authorized officer  |
| Facsimile No.   | Telephone No.   |

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/017059

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

|                               |        |          |     |
|-------------------------------|--------|----------|-----|
| Novelty (N)                   | Claims | 1-8      | YES |
|                               | Claims |          | NO  |
| Inventive step (IS)           | Claims | 4        | YES |
|                               | Claims | 1-3, 5-8 | NO  |
| Industrial applicability (IA) | Claims | 1-8      | YES |
|                               | Claims |          | NO  |

## 2. Citations and explanations

Document 1: US 6240588 B2 (Lam Research Corp.), 05 March 2001

Claims 1, 7 and 8

Document 1 cited in the international search report discloses a cylindrical core for a sponge roller that is used for cleaning, said cylindrical core comprising an inner hole that extends in the axial direction and a plurality of small holes that extend from said inner hole to the outer peripheral surface of the cylindrical core. Therein, the numerical ranges delimited for the diameter of the inner hole and for the diameters of the small holes do not have a critical significance, and thus any person skilled in the art could have established the numerical limits in question, as appropriate. In addition, a person skilled in the art could also configure so that the total cross sectional area of the small holes is larger than the total cross sectional area of the inner hole, as appropriate. Such being the case, the inventions set forth in claims 1, 7 and 8 do not involve an inventive step in the light of document 1.

## Claim 2

Document 1 discloses a core equipped with grooves that extend in the axial direction and small holes that are formed on the interior of said grooves. Therein, a person skilled in the art could configure so that the small holes in adjacent grooves are disposed along the same circumference, as appropriate. Such being the case, the invention set forth in claim 2 does not involve an inventive step in the light of document 1.

## Claim 3

A person skilled in the art could delimit the number of small holes that are formed within a single groove, as appropriate. Such being the case, the invention set forth in claim 3 does not involve an inventive step in the light of document 1.

## Claim 4

The feature wherein the number of small holes formed in a single groove is manipulated so as to form a repeating pattern of rows that comprise a different number of small holes in the axial direction is not disclosed in any of the documents that are cited in the international search report, and would not have been obvious to a person skilled in the art.

## Claim 5

Document 1 discloses a core wherein the grooves are arranged at equally spaced intervals along the circumferential direction, and the arrangement of the small holes alternates in every other groove. Such being the case, the invention set forth in claim 5 does not involve an inventive step in the light of document 1.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claim 5 of the present application sets forth  
"inner holes." However, the disclosure in question should  
instead read "small holes."